

wherein said fluorine-containing gas has a structure that
a ratio of fluorine atoms with respect to elements of the gas
molecule except for fluorine is four or less when the
composition of the fluorine molecule is M_xF_y , $Y/X \leq 4$ where M
is an element except for fluorine atom and F is fluorine, and
the total number of fluorine atoms in elements constituting
said gas molecule is four or less.

4. (amended) A method of manufacturing a semiconductor
apparatus comprising the steps of:

laminating upwards a polycrystal silicon film or an
amorphous silicon film, a tungsten nitride film or a titanium
nitride film, and a tungsten film on a silicon substrate; and

performing a dry-etching of said tungsten nitride film in
its entirety or said titanium nitride film and said tungsten
film in its entirety with only a single mixed gas containing
fluorine-containing gas that includes a compound having
fluorine and carbon in a molecule, chlorine or hydrogen
bromide, oxygen and nitrogen so that a gate electrode is
formed,

wherein said fluorine-containing gas has a structure that
a ratio of fluorine atoms with respect to elements of the gas
molecule except for fluorine is four or less when the
composition of the fluorine molecule is M_xF_y , $Y/X \leq 4$ where M
is an element except for fluorine atom and F is fluorine, and